

Miami Beach Fire Department FIRE PREVENTION DIVISION STANDARDS



TOPIC: Concealed Life Safety Equipment

Page 1 of 2

STANDARD NO: NEWC-S19

Revision 0

Recently, we have seen architects attempting to use concealed fire alarm appliances and concealed emergency lighting fixtures. In the projects that have installed these devices, we have already witnessed that the equipment does not work as intended. Both products are listed by a nationally recognized laboratory to meet the respective code requirements. However, the function to "rotate" the device or expose the device has proven unreliable even during the new construction testing. This function will become worse over time in the existing building.

Emergency lighting:

The emergency lighting fixture is installed hidden behind a panel, which matches the wall finish. Upon power loss, the panel must rotate to expose the light fixture in order to provide the required illumination. We have tested these fixtures and the panel has failed to rotate. We have submitted a complaint to the manufacturer to determine the cause of the failure. As the AHJ, I am not authorizing the use of these fixtures since the rotating mechanism has been unreliable. This policy is based on the following sections of Florida Fire Prevention Code – 2007 Edition.

NFPA 1, Uniform Fire Code, Section 1.4.2 states the specific requirements of this Code shall be permitted to be altered by the AHJ to allow alternative methods that will secure equivalent fire safety, but in no case shall the alternative afford less fire safety than, in the judgment of the AHJ, that which would be provided by compliance with the provisions contained in this Code.

NFPA 1, Uniform Fire Code, Section 1.4.6 The AHJ shall approve such alternative construction systems, materials, or methods of design when it is substantiated that the standards of this Code are at least equaled. If, in the opinion of the AHJ, the standards of this code shall not be equaled by the alternative requested, approval for permanent work shall be refused.

NFPA 101, The Life Safety Code, Section 7.1.10.1 addresses means of egress reliability, and states that means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in case of fire or other emergency.

NFPA 101, The Life Safety Code, Section 7.9.2.3 states that the emergency lighting system shall be arranged to provide the required illumination automatically in the event of any interruption of normal lighting. Section 7.9.2.7 states that the emergency lighting system shall be either continuously in operation or shall be capable of repeated automatic operation without manual intervention. Section 7.8.2.1 states that illumination of means of egress shall be from a source considered reliable by the AHJ.



Miami Beach Fire Department FIRE PREVENTION DIVISION STANDARDS



TOPIC: Concealed Life Safety Equipment

Page 2 of 2

STANDARD NO: NEWC-S19
Revision 0

Fire Alarm Appliances:

The fire alarm notification appliances (horn, strobes) are installed behind a hidden panel, which matches the wall or ceiling finish. The occupant would not see any appliances in a building that does have a fire alarm system. When the fire alarm is activated, the panel must first rotate 180 degrees to expose the appliance. Failure of proper full rotation will render this appliance ineffective to provide the proper audible and visual requirements stated in the code. The rotating mechanism has already shown unreliable during initial installation and would become worse over time in an existing building. As the AHJ, I am not authorizing the use of these fixtures since the rotating mechanism has been unreliable. This policy is based on the following sections of The Florida Fire Prevention Code – 2007 Edition.

NFPA 1, Uniform Fire Code, Section 1.4.2 states the specific requirements of this Code shall be permitted to be altered by the AHJ to allow alternative methods that will secure equivalent fire safety, but in no case shall the alternative afford less fire safety than, in the judgment of the AHJ, that which would be provided by compliance with the provisions contained in this Code.

NFPA 1, Uniform Fire Code, Section 1.4.6 The AHJ shall approve such alternative construction systems, materials, or methods of design when it is substantiated that the standards of this Code are at least equaled. If, in the opinion of the AHJ, the standards of this code shall not be equaled by the alternative requested, approval for permanent work shall be refused.

NFP 101, The Life Safety Code, Section 9.6.1.4 states that all systems and components shall be approved for the purpose for which they are installed. Section 9.6.3.1 states that occupant notification shall be provided to alert occupants of a fire or other emergency.

The design professional or owner may appeal this policy to the Miami Dade County Fire Prevention and Safety Appeals Board.

Sonia Flores Machen, P.É.

Fire Marshal

Date Issued